

WHAT IS CLAIMED IS:

1. A process for producing bisphenol A by reacting acetone with phenol in the presence of an acid-type ion exchange resin partially modified with a sulfur-containing amine compound as catalyst and alkylmercaptan as co-catalyst, said process comprising:

conducting said reaction using a multi-stage reaction apparatus comprising at least two individual reactors connected in series to each other, wherein the molar ratio of total alkylmercaptan to total acetone and the molar ratio of total acetone to phenol are increased as the conversion rate of the phenol is decreased.

2. A process according to Claim 1, wherein whole amount of the phenol is fed into a first-stage reactor of the multi-stage reaction apparatus, and the acetone is fed in separate parts into the respective reactors.

3. A process according to Claim 1, wherein the molar ratio of total acetone to phenol at an initial stage of the reaction is in the range of 1/9 to 1/11.

4. A process according to Claim 1, wherein the molar ratio of total alkyl mercaptan to total acetone and the molar ratio of total acetone to phenol are increased when the phenol conversion rate measured at an outlet of the last stage reactor of said multi-stage reaction apparatus is decreased to 90 to 99% of the initial conversion rate.

5. A process according to Claim 1, wherein the molar ratio of total alkyl mercaptan to total acetone is increased so as not to exceed 1/20.

6. A process according to Claim 1, wherein the molar ratio of total acetone to phenol is increased so as not to exceed 1/3.

7. A process according to Claim 1, wherein said sulfur-containing amine compound is selected from the group consisting of mercaptoalkyl amines and thiazolidines.

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8. A process according to Claim 1, wherein said acid-type ion exchange resin is a sulfonic acid-type cation exchange resin.

9. A process according to Claim 1, wherein said alkylmercaptan is ethylmercaptan.

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10. A process according to Claim 1, wherein the reaction is conducted at a temperature of 60 to 100°C.

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